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TRANSMITTAL	Filing Date	02/09/2000				
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	Examiner Name	not yet assigned				
Total Number of Pages in This Submission 20	Attorney Docket Number	133.1026.01				
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Docket No: 133.1026.01



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Brian Bulkowski

Serial No.

09/500,698

Filed:

2/09/2000

For: Broadcast Distribution Using Low-

Level Objects And Locator Tables

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14 Independent Claims

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Bib Data Sheet



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SERIAL NUMBER 09/500,698	FILING DATE 02/09/2000 RULE _	CLASS GR 348		GRO	GROUP ART UNIT 2711		ATTORNEY DOCKET NO. 133.1026.01		
APPLICANTS				***************************************		***************************************			
Brian Bulkowski,	San Francisco, CA ;								
** CONTINUING DATA **********************************									
** FOREIGN APPLICA	TIONS ************	**							
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Foreign Priority claimed	u yes u no		07475.00		IEEEO				
35 USC 119 (a-d) conditions met	yes no Met afte	er	STATE OR COUNTRY	•			TAL INDEPENDENT NIMS CLAIMS 5 14		
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TITLE									
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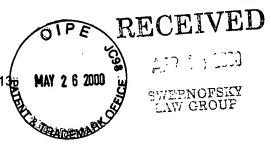
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TOT FILING DATE GRP ART UNIT FIL FEE REC'D ATTY.DOCKET.NO APPLICATION NUMBER DRAWINGS IND CLAIMS **CLAIMS** 02/09/2000 2711 0 7 09/500,698 133.1026.01 55 15

22883 SWERNOFSKY LAW GROUP P O BOX 390013 MOUNTAIN VIEW, CA 940390013



Date Mailed: 04/10/2000

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Applicant(s)

Brian Bulkowski, San Francisco, CA;

Continuing Data as Claimed by Applicant

Foreign Applications

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Title

Broadcast distribution using low-level objects and locator tables

Preliminary Class

348

Data entry by: LADRINGAN, JUDITH

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Claims

3 I claim:

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1. A method for receiving data over a broadcast medium, comprising the steps of:

receiving a request for a desired data object, said desired data object being

7 associated with a first-level name;

8 obtaining a plurality of second-level names associated with said first-level name,

said plurality of second-level names being associated with a plurality of low-level data

objects constituting a portion of said desired data object;

for each one of said plurality of second-level names, performing the steps of:

obtaining location information associated with said second-level name; and

obtaining data associated with the low-level data object associated with said

each one of said plurality of second-level names responsive to said location information.

2. The method of claim 1 wherein said desired data object is a web page.

3. The method of claim 2 wherein said web page comprises a multi-screen web page.

4. The method of claim 1 wherein said desired data object is a word processing file.

5. The method of claim 1 wherein said broadcast medium includes a cable.

1 6. The method of claim 5 wherein said cable is fiber optic cable. 2 3 7. The method of claim 1 wherein said broadcast medium allows for wireless communication. 5 6 8. The method of claim 1 wherein said broadcast medium is a portion of a computer 7 network. 8 9 9. The method of claim 1 wherein said first-level name is a uniform resource locator 10 (URL). 11 12 10. The method of claim 1 wherein said first-level name is a web page title. 13 14 11. The method of claim 1 wherein said first-level name is a text string. 15 16 12. The method of claim 11 wherein said text string is associated with an icon. 17 18 13. The method of claim 1 wherein said second-level name takes a minimal amount of 19 storage space. 20 21 14. The method of claim 1 wherein said second-level name is an integer. 22



2 15. The method of claim 1 wherein said second-level name is an index into a table.

4 16. The method of claim 1 wherein said location information is accessed through a

5 memory containing a data structure.

7 17. The method of claim 1 wherein said location information is sufficient to locate said

8 data in a data stream.

18. The method of claim 17 wherein said location information comprises an MPEG

11 table.

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19. The method of claim 1, including the further step of combining said plurality of low-

level data objects.

16 20. The method of claim 19 wherein the step of combining results in a portion of said

17 desired data object.

19 21. The method of claim 20, including the further step of presenting said desired data

20 object.

22 22. A method for receiving data over broadcast media, comprising the steps of:

1	receiving a request for a desired data object, said desired data object being
2	associated with a first-level name;
3	looking up said first-level name in a First-level Name Table;
4	obtaining a plurality of second-level names associated with said first-level name
5	responsive to the step of looking, and
6	for each one of said plurality of second-level names so obtained, performing the
7	steps of:
8	looking up each said second-level name in a Low-level Data Object Locator
9	Table,
10	obtaining location information associated with said each said second-level
11	name,
12	obtaining data responsive to said location information.
13	
14	23. The method of claim 22 wherein said desired data object is a web page.
15	
16	24. The method of claim 22 wherein said broadcast medium includes a cable.
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18	25. The method of claim 22 wherein said first-level name is a web page title.
19	
20	26. The method of claim 22 wherein said location information is accessed through a
21	memory containing a data structure.

1	27. The method of claim 22 wherein said location information is sufficient to locate said
2	data in a data stream.
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4	28. The method of claim 22, including the further step of combining said plurality of
5	low-level data objects.
6	
7	29. The method of claim 28 wherein the step of combining results in a portion of said
8	desired data object.
9	
10	30. The method of claim 22, including the further step of presenting said desired data
11	object.
12	(3)
13	31. A method for organizing data for transmission in a data stream over broadcast media,
14	comprising the steps of:
15	associating a first-level name with said data;
16	organizing said data into a plurality of data objects;
17	for each one of said plurality of data objects, performing the steps of:
18	associating a second-level name with said each one of said plurality of data
19	objects;
20	associating a data location with said second-level name; and
21	assigning said data object to be broadcast in said data location.

32. The method of claim 31, including the further step of broadcasting said each one of 1 said plurality of data objects in said data location. 2 3 33. The method of claim 32, wherein said each one of said plurality of data objects is 4 broadcast as an MPEG section. 5 6 34. The method of claim 32, wherein said each one of said plurality of data objects is 7 formatted for transmission as an MPEG section. 8 9 35. The method of claim 31, wherein said data object is formatted for transmission as an 10 UDP packet. 11 12 A memory including a data structure including a set of entries, each of said 13 plurality of entries including 14 a textstring associated with a first-level name, said first-level name being 15 associated with a desired data object; and 16 a plurality of integers, each of said plurality of integers being associated 17 with a second-level name, each said second-level name being associated with a low-level 18 data object, said plurality of second-level names composing said data object. 19 20 A memory including a data structure including 21

a First-level Name Table; and

a data object locator table.

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3 38. The data structure of claim 6, further including a root object locator table.

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- 5 39. An apparatus having at least one processor and at least one memory coupled to said
- at least one processor for receiving data over a broadcast medium, said apparatus
- 7 includes:
- a first mechanism configured to receive a request for a desired data object, said
- 9 desired data object being associated with a first-level name;
- a second mechanism configured to obtain a plurality of second level names
- associated with said first-level name, said plurality of second-level names being
- associated with a plurality of low-level data objects constituting a portion of said desired
- 13 data objects;
- a third mechanism configured to obtain location information responsive to each on
- of said plurality of second-level names; and
- a fourth mechanism configured to obtain data associated with the data object
- associated with said each one of said plurality of second-level names responsive to said
- 18 location information.

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20 40. The apparatus of claim 39 wherein said desired data object is a web page.

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41. The apparatus of claim 39 wherein said broadcast medium includes a cable.

2 42. The apparatus of claim 39 wherein said first-level name is a web page title.

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- 4 43. The apparatus of claim 39 wherein said location information is accessed through a
- 5 memory containing a data structure.

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- 7 44. The apparatus of claim 39 wherein said location information is sufficient to locate
- 8 said data in a data stream.

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- 10 45. The apparatus of claim 39, further including a combine mechanism configured to
- combine said plurality of low-level data objects.

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- 13 46. The apparatus of claim 45 wherein said combine mechanism is configured so that the
- result is a portion of said desired data object.

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- 16 47. The apparatus of claim 39, further including a presentation mechanism configured to
- 17 present said desired data object.

- 19 48. An apparatus having at least one processor and at least one memory coupled to said
- at least one processor for receiving data over broadcast media, said apparatus includes:
- a reception mechanism configured to receive a request for a desired data object,
- said desired data object being associated with a first-level name;

1	a lookup mechanism configured to look up said first-level name in a First-level
2	Name Table;
3	an obtain mechanism configured to obtain a plurality of second-level names
4	associated with said first-level name responsive to said lookup mechanism;
5	a second lookup mechanism configured to lookup each of said plurality of second-
6	level names;
7	a second obtain mechanism configured to obtain location information associated
8	with said each said second-level name;
9	a third obtain mechanism configured to obtain data responsive to said location
10	information.
11	③ -
12	49. An apparatus having at least one processor and at least one memory coupled to said
13	at least one processor for organizing data for transmission in a data stream over broadcast
14	media, said apparatus includes:
15	a first association mechanism configured to associate a first-level name with said
16	data;
17	an organization mechanism configured to associate a second-level name with each
18	one of said plurality of data objects;
19	an second association mechanism configured to associate a second-level name
20	wtih each one of said plurality of data objects;
21	a third association mechanism configured to associate a data location with said

second-level name; and

an assign mechanism configured to assign said data object to be broadcast in said 1 data location. 2 3 50. A computer program product including: a computer usable storage medium having computer readable code embodied 5 therein for causing a computer to receive data over a broadcast medium, said computer . 6 readable code includes: 7 computer readable program code configured to cause said computer to effect a 8 first mechanism configured to receive a request for a desired data object, said desired 9 data object being associated with a first-level name; 10 computer readable program code configured to cause said computer to effect a 11 second mechanism configured to obtain a plurality of second level names associated with 12 said first-level name, said plurality of second-level names being associated with a 13 plurality of low-level data objects constituting a portion of said desired data objects; 14 computer readable program code configured to cause said computer to effect a 15 third mechanism configured to obtain location information responsive to each on of said 16 plurality of second-level names; and 17 computer readable program code configured to cause said computer to effect a 18

21 22 information.

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fourth mechanism configured to obtain data associated with the data object associated

with said each one of said plurality of second-level names responsive to said location

51. A computer program product including:

a computer usable storage medium having computer readable code embodied

3 therein for causing a computer to receive data over broadcast media, said computer

4 readable code includes:

5 computer readable program code configured to cause said computer to effect a

reception mechanism configured to receive a request for a desired data object, said

desired data object being associated with a first-level name;

computer readable program code configured to cause said computer to effect a

lookup mechanism configured to look up said first-level name in a First-level Name

10 Table;

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computer readable program code configured to cause said computer to effect an obtain mechanism configured to obtain a plurality of second-level names associated with

said first-level name responsive to said lookup mechanism;

computer readable program code configured to cause said computer to effect a

second lookup mechanism configured to lookup each of said plurality of second-level

16 names;

computer readable program code configured to cause said computer to effect a

second obtain mechanism configured to obtain location information associated with said

each said second-level name;

computer readable program code configured to cause said computer to effect a

third obtain mechanism configured to obtain data responsive to said location information.

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52. A computer program product including

a computer usable storage medium having computer readable code embodied

therein for causing a computer to organize data for transmission in a data stream over

4 broadcast media, said apparatus includes:

5 computer readable program code configured to cause said computer to effect a

first association mechanism configured to associate a first-level name with said data;

7 computer readable program code configured to cause said computer to effect an

organization mechanism configured to associate a second-level name with each one of

said plurality of data objects;

computer readable program code configured to cause said computer to effect an

second association mechanism configured to associate a second-level name with each

one of said plurality of data objects;

computer readable program code configured to cause said computer to effect a

third association mechanism configured to associate a data location with said second-

level name; and

computer readable program code configured to cause said computer to effect an

17 assign mechanism configured to assign said data object to be broadcast in said data

18 location.

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20 53. A computer program product including:

a computer data signal embodied in a carrier wave having computer readable code 1 2 embodied therein for causing a computer to receive data over a broadcast medium, said computer readable code includes: 3 computer readable program code configured to cause said computer to effect a 4 first mechanism configured to receive a request for a desired data object, said desired 5 data object being associated with a first-level name; 6 computer readable program code configured to cause said computer to effect a 7 second mechanism configured to obtain a plurality of second level names associated with 8 said first-level name, said plurality of second-level names being associated with a 9 plurality of low-level data objects constituting a portion of said desired data objects; 10 computer readable program code configured to cause said computer to effect a 11 third mechanism configured to obtain location information responsive to each on of said 12 13 plurality of second-level names; and 14 computer readable program code configured to cause said computer to effect a fourth mechanism configured to obtain data associated with the data object associated 15 16 with said each one of said plurality of second-level names responsive to said location

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information.

19 54. A computer program product including:

a computer data signal embodied in a carrier wave having computer readable code embodied therein for causing a computer to receive data over broadcast media, said computer readable code includes:

1	computer readable program code configured to cause said computer to effect a
2	reception mechanism configured to receive a request for a desired data object, said
3	desired data object being associated with a first-level name;
4	computer readable program code configured to cause said computer to effect a
5	lookup mechanism configured to look up said first-level name in a First-level Name
6	Table;
7	computer readable program code configured to cause said computer to effect an
8	obtain mechanism configured to obtain a plurality of second-level names associated with
9	said first-level name responsive to said lookup mechanism;
10	computer readable program code configured to cause said computer to effect a
11	second lookup mechanism configured to lookup each of said plurality of second-level
12	names;
13	computer readable program code configured to cause said computer to effect a
14	second obtain mechanism configured to obtain location information associated with said
15	each said second-level name;
16	computer readable program code configured to cause said computer to effect a
17	third obtain mechanism configured to obtain data responsive to said location information
18	(14)
19	55. A computer program product including:
20	a computer data signal embodied in a carrier wave having computer readable code
21	embodied therein for causing a computer to organize data for transmission in a data

stream over broadcast media, said apparatus includes:

computer readable program code configured to cause said computer to effect a 1 first association mechanism configured to associate a first-level name with said data; 2 computer readable program code configured to cause said computer to effect an 3 organization mechanism configured to associate a second-level name with each one of 4 said plurality of data objects; 5 computer readable program code configured to cause said computer to effect an 6 second association mechanism configured to associate a second-level name with each 7 one of said plurality of data objects; 8 computer readable program code configured to cause said computer to effect a 9 third association mechanism configured to associate a data location with said second-10 level name; and 11 computer readable program code configured to cause said computer to effect an 12

assign mechanism configured to assign said data object to be broadcast in said data

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location.